

# AMARC

## ...A Diamond in the Desert

Supplement to the Desert Airman

Issue 4  
Nov. 7, 2003

## Commander's

**Colonel Lourdes Castillo**  
AMARC Commander

In last month's article I briefly addressed AMARC's year-end financial summary. We ended fiscal year 2003 with an accumulated operating profit of more than \$9.3 million.

The profit was due, in large part, to a significant increase in workload. But what is the importance of the cash profit for the working capital fund? And, most importantly, where does the money go?

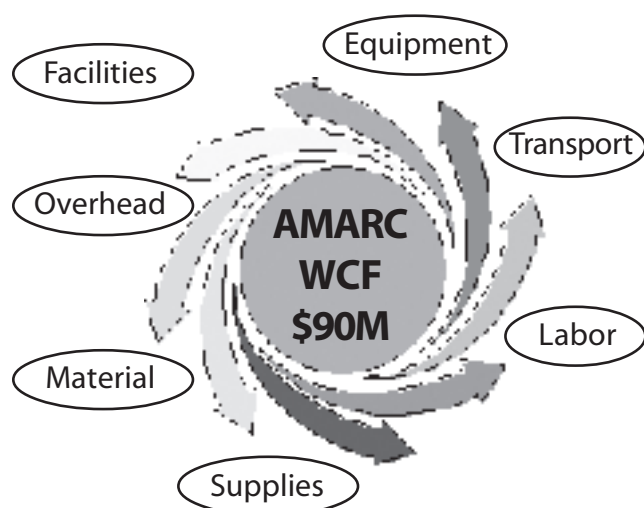
The working capital fund is supposed to generate sufficient revenue to recover expenses incurred in Center operations and is expected to operate on a break-even-basis over time.

However, setting prices to ensure that the funds do break even is a complex task as these are established prior to the start of each fiscal year and applied to most orders received during the year.

After the Center estimates its workload based on customer input, it uses productivity projections to estimate how many people it will need to accomplish its work; prepare its budget that identifies labor, material, and other expected costs; and develops prices in advance that, when applied to the projected workload, allow to recover operating costs from its customers.

Because sales prices are based on expected rather than actual costs and workloads, higher-than-expected costs or

See *WCF*, Page 2



(Left) The first Air Force F-4 retired in 1986 with others arriving for storage throughout the next 12 years. Currently over 500 are stored at AMARC. (Right) This QF-4E drone flies over the White Sands Missile Range, New Mexico. The aircraft is being flown via remote control from the ground.



Air Force Photos

## Phantoms revived from desert for second use

For those used to seeing the familiar A-10s and C-130s taxiing around Davis-Monthan Air Force Base and flying over Tucson, Ariz., the sight of an F-4 can cause a double-take. Perhaps many of those unfamiliar with these aircraft were not even born when they were built. For those familiar, the sight of the mighty Rhino as it is affectionately called, evokes many memories of the McDonnell-Douglas F-4 Phantom II.

Over 5,000 Phantoms were built from the mid-1960s through the mid-1970s, making it one of the largest lots of aircraft ever produced. They performed well, much of it during combat, for over ten nations – and still serve in defense of a few of these countries today. The last active F-4s, the G-Model 'Wild Weasels,' were retired in 1996. They were flown to the Aerospace Maintenance and Regeneration Center, where they joined hundreds of their brethren already in storage. AMARC now has over 500 Phantoms in storage, down from over 1,000 in years past.

Last month, the AMARC aircrew delivered the 156th Phantom for the Full Scale Aerial Target program. This is about half-way through the planned 350 deliveries scheduled to run through 2009.

### AMARC

Restoration is the first step in the regeneration process that turns an F-4 from a latex-coated airframe parked in desert storage into a flying QF-4 target drone critical for weapons testing. A very qualified and competent workforce follows a 7-month program to make these 30-year old aircraft, some of which have

been stored for over 12 years, ready to fly. Each aircraft is brought up to the latest time compliance technical orders, all components are checked for wear and tear, and repaired or replaced as necessary. The jet is then handed over to the pilot and Weapon Systems Officer from the AMARC Flight Test section. The WSO is critical to the safety of the test mission because of the important switches and circuit breakers located in the back seat, which the pilot would not have access to during solo flight. The Flight Test crew averages three functional check flights per jet before it is signed off as ready for delivery. Several times a jet passes in the first flight following regeneration. In other words, a 30+ year-old jet, sitting in desert storage for 12+ years, completes the entire FCF profile in one flight and lands with no write-ups.

### BAE Systems, Mojave, Calif.

Once each aircraft completes the regeneration and FCF program, it is delivered to Mojave, Calif.

This small airport is the home of BAE Systems, the company contracted to install the remote control drone package. After the 5-month work package is completed, the BAE test pilot puts it through another round of manned functional check flying.

The Phantom has now officially completed the transformation into the QF-4. During this conversion, several important switches and circuit breakers are moved to the front cockpit, making the jet safer for single seat flying. The

See *Drones*, Page 2

## WCF

Continued from Page 1

lower-than-expected customer demand for goods and services can cause the Center to incur losses. Conversely, lower-than-expected costs or higher-than-expected workloads can result in profits.

Cash generated from the sales of goods and services is the primary means by which the working capital fund maintains an adequate level of cash to pay bills. During the execution of the budget, the working capital fund operates much like a checking account: collections increase the funds' account balance and disbursements (such as salaries and purchases of materials) reduce the account balance. If losses are experienced, future prices or sales rates are increased to recover the losses.

On the other hand, year-end profits allow the Center not only to recover its operating costs, but also recover prior year losses and reduce out year sales rates charged to our customers. In other words, we provide quality assets and services at the lowest cost.

## Drones

Continued from Page 1

test pilot then delivers the QF-4 drones for acceptance testing.

### Tyndall AFB, Fla.

Upon acceptance from the contractor, the new drones now belong to the 82nd Aerial Targets Squadron, "Team Target," at Tyndall Air Force Base. They take each aircraft, energize the remote-control package, and test fly it via remote control.

There is a pilot on board acting as a safety observer. If there is a system malfunction, the pilot can disconnect the remote system and recover the aircraft safely.

Once deemed ready, the drone is prepared for its first pilot-less flight. The 82nd ATRS, with over 30 QF-4 drones, specializes in providing realistic targets for air-to-air missiles, such as the AIM-120 ARAAM, AIM-7 Sparrow, and AIM-9 Sidewinder.

Each target has about a 5-mission lifespan. Often tests against the drones are conducted with air-to-air and surface-to-air weapons lacking warheads. A close pass will result in a proximity kill via telemetry, but will spare the drone to fly another mission.

The tail hook is lowered, and the jet is landed

and trapped in the arresting wires stretched across the approach end of the runway. Often, even though unarmed, the weapon will actually hit the QF-4 and destroy it. If the aircraft is still flying but a successful recovery is doubtful, a self-destruct sequence is initiated.

### Holloman AFB, N.M.

While Tyndall specializes in the air-to-air arena, Detachment 1, 82nd ATRS of Holloman Air Force Base, N.M. supports surface-to-air missile system testing. They fly their missions over the vast open spaces around the White Sands Missile Range complex against Patriot, Hawk, and other SAM systems.

The Full Scale Aerial Target remote-controllers are able to fly the QF-4 to its limits, as if they were actually in the aircraft. The Phantom is capable of high speed at all altitudes, and can carry thousands of pounds of defensive systems which ensures a realistic target and engagement for systems flying against them.

Many ask, "Don't you hate to be involved in a program that sees these once proud warhorses get shot down in flames as targets?" The answer is no, as the Phantoms continue in valuable service to our nation. Through the regeneration program, the mighty Phantoms live again. *(Information courtesy AMARC Flight Operations)*

# STAY UP TO DATE SUBSCRIBE TODAY!



## JOURNAL OF AEROSPACE AND DEFENSE INDUSTRY NEWS

MILITARY NEWS ~~AND~~ DEFENSE INDUSTRY NEWS ~~AND~~ SPACE NEWS ~~AND~~ CONTRACTS ~~AND~~ SOURCES SOUGHT  
TECHNOLOGY ~~AND~~ BUSINESS ~~AND~~ EVENTS ~~AND~~ FEATURES ~~AND~~ HISTORICAL MILESTONES ~~AND~~ PEOPLE ~~AND~~ REFERENCE

Keep on top of the fast paced changes within the aerospace and defense industry with AEROTECH NEWS AND REVIEW, the weekly journal of aerospace and defense industry news. As a subscriber, you will receive our monthly regional Aerotech News (published the first Friday of each month) followed by the weekly Aerotech News and Review trade journal on each subsequent Friday.

Delivered to you by U.S. Mail each week, AEROTECH NEWS brings you important news of contract awards, sources sought, military and contractor news, space and technology, and features. All for only \$78 per year.

To subscribe, simply complete the form, attach your payment and mail to:

### AEROTECH NEWS Subscriber Services

456 East Avenue K-4, Suite 8

Lancaster, CA 93535

or call (661) 945-5634 to subscribe by phone

**YES!** Start my subscription to AEROTECH NEWS today.  
I have enclosed payment for:

☐ \$49 (6 mos.) ☐ \$78 (1 yr.)

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

Visa/MC# \_\_\_\_\_ Exp. date \_\_\_\_\_

Signature \_\_\_\_\_



# New AMARC complex near completion

By Van Bricker

AMARC, Director, Plans and Programs

AMARC's new 37,000 square foot Aircraft Reclamation and Parts Processing Complex is scheduled to be complete Nov. 20.

This state of the art facility was developed to consolidate parts reclamation processes such as disassembly of parts and components, non-destructive inspection, packaging, crating, and shipping. Through consolidation of these processes and the use of modern technology, AMARC is expected to increase efficiency 20 percent and slash customer wait time by 10 percent.

The latest architectural design features such as motion lighting to reduce electrical consumption; consolidated recessed files; state of the art bead blaster; parts washer; fluorescent penetrate, magnetic particle, eddy current, ultrasound, and X-ray machines; and automated conveyor system were utilized to integrate efficiencies into the processes.

AMARC's parts reclamation effort provides critical components in support of active, Guard and Reserve aircraft as well as foreign military sales. During Operations DESERT STORM, DESERT SHIELD and NOBLE EAGLE, AMARC provided over 3,000 critical parts for A-10, F-15, C-142, C-130, F-14, EA-6B and KC-135 aircraft.

In fiscal year 2003 alone, AMARC saved tax payers over \$83.4M in procurement costs through reclaimed parts.



2nd Lt. Beth Tucker



2nd Lt. Beth Tucker

(Top) Construction started in October 2002 and is scheduled for completion in November 2003. (Bottom) Automated parts conveyors will contribute to an increased production and efficiency.

## AMARC launches aggressive marketing strategy

The Center just launched an aggressive strategy to attract potential customers.

Highly-skilled personnel draw on over 200 years of experience in areas such as aircraft, hydraulics, engines, and electrical systems repair.

Their industrial facilities and technical equipment are used to meet precision machining needs; custom crating/specialty packaging; and provide a full service stop for avionics and instrument repair, nondestructive testing and airframe structural repairs.

For additional information, contact the AMARC business office at 228-8226 or 228-8001.

## FELLOWSHIP OF CHRISTIAN ATHLETES

"I have seen lives completely changed. Especially when you send kids to FCA summer camps. There is nothing that affects kids like FCA."

Bobby Bowden,  
Football Coach, Florida State

8701 Leeds Road  
Kansas City, MO 64129-1680  
816-921-0909 • [www.fca.org](http://www.fca.org)

a CFC participant



## Imagine being diagnosed with an incurable disease.



Kids like Jennifer deserve more to look forward to than daily injections and incurable disease. Although insulin can help, it is not the cure. In fact, diabetes kills one American every three minutes.

At last, there's hope. Research funded by the Juvenile Diabetes Research Foundation is closer than ever to a cure. But we can't do it alone. To find out how you can help,

Now imagine you're ten.

Please Call 1.800.533.CURE

or visit [www.jdrf.org](http://www.jdrf.org)

Juvenile Diabetes Research  
Foundation International



dedicated to finding a cure

a CFC participant

Come Home to CANOA

**Santa Rita Shadows from \$129,900**  
LARGER HOMESITES! FINAL PHASE!  
Sahuarita Rd. east of Houghton Rd. 762-9419

**Continental Reserve from \$167,400**  
GRAND OPENING!  
Continental Reserve Loop west of  
Silverbell Rd. 572-7000

**Entrada at Sabino Springs from \$229,900**  
MOUNTAIN VIEWS!  
Snyder Rd. west of Houghton Rd. 760-3205

**Sycamore Springs from \$239,900**  
2+ ACRE LOTS! NO LOT PREMIUMS!  
Sahuarita Rd. west of Houghton Rd. 762-3216

**COMING SOON! 790-6986**  
· Mirasol at Santa Rita Foothills from the \$110s  
· Estates at Cienega Creek from the \$190s

[www.canoahomes.com](http://www.canoahomes.com)

Prices subject to change. Models shown do not reflect racial preference.  
\*No sales may occur until issuance of Arizona Subdivision Public Report. ROC Bo89659



Imagine facing blindness, kidney failure, or amputation.



Now imagine you're nine.

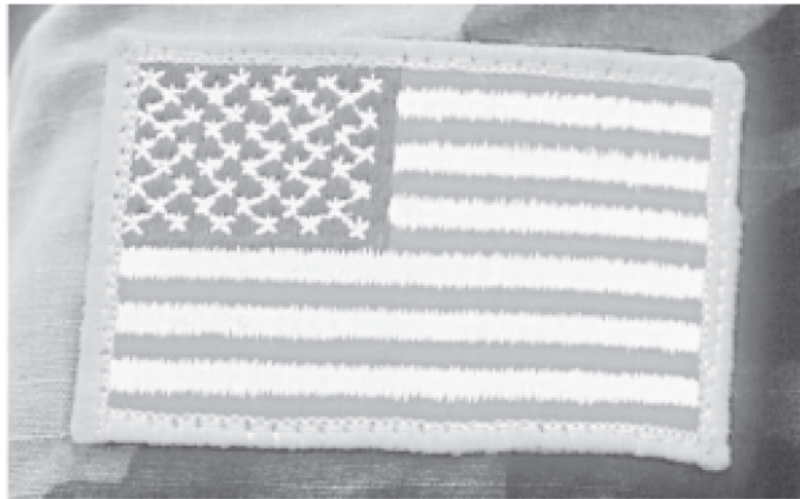
Kids like Samantha deserve more to look forward to than daily injections and incurable disease. Although insulin can help, it is not the cure. In fact, diabetes kills one American every three minutes.

At last, there's hope. Research funded by the Juvenile Diabetes Research Foundation is closer than ever to a cure. But we can't do it alone. To find out how you can help, please visit [www.jdrf.org](http://www.jdrf.org) or call 1.800.533.CURE.



1.800.533.CURE

## Your Service Got Our Attention



While the country is honoring all American heroes this Veteran's Day, let us honor you with

**10% off your next purchase.**

Stop in anytime between Thursday, November 6th through Tuesday, November 11th, with your valid military identification, and receive your 10% off coupon at the Special Services Desk.

Let us help you improve your favorite place - your home. We have the tools and the know-how to get the job done. Then, you can enjoy the results.

**At Ease.**

You can do it. We can help.



Learn more about our commitment to the troops at [projecthomefront.org](http://projecthomefront.org).

©2003 HOMER LLC. Other terms and conditions apply. See store for details. AEP#R110603 - 1 - 59740, 3 - 59741, 5 - 59743, 7 - 59744, 11 - 59745, 12 - 59746

## Children Learn More from Do's than Don'ts

Young children will be better behaved when they know clearly what you expect of them. Instead of just saying, "Don't do that," show and tell your child what you *do* want him or her to do. Follow these four steps:

**1) Teach your child the steps of the desired behavior.**

It is unreasonable to expect your child to do something if you haven't taught it to him or her.

**2) Have your child describe the behavior back to you.**

This will tell you whether or not your child understands your expectations.

**3) Ask your child to demonstrate the behavior to you.**

If your child can demonstrate the behavior reasonably well, then you know that it is within the child's abilities.

**4) Model the behavior yourself.**

Children are always watching you and trying to imitate your behavior.

Use these steps to reduce behaviors like whining and nagging or to improve behaviors like table manners and sharing toys.

For more tips on parenting, visit [www.parenting.org](http://www.parenting.org) or call the Girls and Boys Town National Hotline, 1-800-448-3000.

A CFC participant • provided as a public service

The Original Father Flanagan's Boys' Home



## Common Sense Parenting®

**New Book Brings Help and Confidence to Parents of Toddlers**

HELP • HEALING • HOPE

Confidence. Less conflict. Enjoyment.

That's what author Bridget Barnes believes parents who use the techniques and skills explained in the new book, *Common Sense Parenting of Toddlers and Preschoolers*, can gain. Those skills have been taught to parents of 2 to 5 year-olds in workshops offered by Girls and Boys Town since 1996 and are now available to any parent through the book just published by Boys Town Press.

When a parent realizes that "I can correct my child, he or she may get upset with me, but the child is still going to love me," the parent gains confidence, according to Barnes. The book shows parents how to stay calm, communicate clearly, set boundaries, have reasonable expectations, give consistent consequences, and teach a young child self-control and other skills.

Parenting toddlers can be a time of high conflict. Many couples are just finding out that they have very different parenting styles — one may see the other as either too lenient or too strict, says Barnes. It may not be an exaggeration, she adds, to say that agreeing to use Common Sense Parenting® techniques "saves marriages. It can lead to a lot less strife."

Parents, according to Barnes, list many of the same problems

with their toddlers — acting up at bedtime and meals, throwing temper tantrums, refusing to take "no" for an answer, etc. In dealing with these issues, however, parents also make common mistakes — treating children like "little adults," giving kids choices they're not equipped to make, and setting expectations too high.

Young children, she says, need lots of reminders, assistance, modeling, and patience. The book provides step-by-step information on how to do these things. Also included are answers to dozens of questions frequently asked by parents of toddlers.

Barnes is the mother of two and stepmother of four children and has been a Common Sense Parenting trainer for 13 years.

*Common Sense Parenting of Toddlers and Preschoolers* is available from the Boys Town Press, 14100 Crawford St., Boys Town, NE 68010, 1-800-282-6657, [www.girlsandboystown.org/btpres](http://www.girlsandboystown.org/btpres)

Boys Town Press is the publishing division of Girls and Boys Town, the original Father Flanagan's Boys' Home.

For more tips on parenting, visit our Web site: [www.parenting.org](http://www.parenting.org) or call the Girls and Boys Town National Hotline, 1-800-448-3000.

A CFC participant

# Braces

*Free Initial Exam -Se Habla Espanol*

**Candace G. Walters, DDS. MSD. PC**

Member of the American Association of Orthodontists and the American Dental Association

### ASK ABOUT OUR MILITARY DISCOUNT

- NO DOWN PAYMENT PLAN AVAILABLE
- INTEREST-FREE PAYMENT PROGRAM AVAILABLE

- Clear, Gold & Metal Braces Available
- **invisalign®** (Invisible & Removable Braces)
- Treatment for Children & Adults
- To correct teeth too far apart, too crowded, or protruding
- Pre Teen Treatment

**Financing Available**

Practice Limited To Braces

**571-1756**

**Appointments**

Mon. - Sat. Evenings Available

**899 N. Wilmot, Suite C-1  
San Rafael Plaza**

*5 Minutes from Wilmot Gate*